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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/807,111

03/24/2004

Yin-Hung Chen

OP-093000203

2514

7590

03/08/2006

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Fairfax, VA 22033

EXAMINER

EDWARDS, ANTHONY Q

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/807,111

Applicant(s)

CHEN, YIN-HUNG

Examiner

Anthony Q. Edwards

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 7-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1 and 7-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,635,435 to Davis et al. in view of U.S. Patent No. 6,700,777 to Chen. Referring to claim 1, Davis discloses an internal arrangement of a small form factor computer (see Fig. 1), which clears a heat dissipation channel between a second access unit (i.e., box below 14) and a motherboard (16) by changing an allocation of a first access unit (not numbered, but shown two components above 15), comprising a case (10) including a bottom portion (not numbered) with the motherboard (16) mounted thereon and a front (not numbered) and a rear panel (22) adjacent to two opposing sides of the bottom portion to form a receiving space therebetween (see Fig. 1), and a plurality of stacked computer components in an array (see col. 2, lines 42-45) as the first access unit installed in an upper portion of the receiving space close to the rear panel (22) instead of stacking with the second access unit (i.e., box below 14), thereby allowing air entering inside the case to flow and deliver heat from the front to the back of the case. See the arrows shown in Fig. 1.

Davis does not specifically teach the stacked computer components being hard drives. Chen teaches providing hard disk drives in a stacked arrangement (see Figs. 1 and 2, as well as col. 1, lines 14-17), within a box (10) for placement in a computer enclosure (50). It would have

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been obvious to one having ordinary skill in the art at the time of the invention to modify the internal arrangement of Davis to include a plurality of stacked hard drives in a disk array, as taught by Chen, since the device of Chen would allow for quick and easy replacement of hard drives for the arrangement of Davis.

Referring to claim 7, Davis in view of Chen disclose an arrangement, further comprising a pair of support member (6) extending between the front and the rear panel, wherein the support members (66) for a space for receiving the first access unit (10) therein. See Figs. 1 and 2 of Chen.

Referring to claim 8, Davis in view of Chen disclose an arrangement, wherein the first access unit includes a box member (10) hard disk disposed in the box member. See Figs. 1 and 2, as well as col. 1, lines 14-15 of Chen.

Referring to claim 9, Davis in view of Chen disclose an arrangement, wherein the box member (10) includes a plurality of connection members (20) formed along a periphery thereof to be fitted with the support members. See Figs. 1 and 2 of Chen.

Referring to claim 10, Davis in view of Chen disclose an arrangement, wherein the box member (10) inherently includes a terminal at one end thereof, since a terminal member must be provided at the box for electrical communication.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. As indicated above, Davis in view of Chen teach a plurality of hard drives in a disk array.

The remainder of applicant's arguments filed November 25, 2005 have been fully considered but they are not persuasive. Specifically, with respect the applicant's recitation of "a small form factor computer," this limitation has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Even if this limitation were provided in the body of the claim, applicant's definition of a "small form factor computer" is met by the Davis reference, since Davis shows the motherboard on the bottom portion of the case (10). Applicant's suggestion on page 5 of the Remarks that Davis teaches a motherboard "located under the cooling assembly" is unfounded, since the number line 16 (shown in Fig. 1) is apparently pointing to the wrong element. As shown in Fig. 2, that element is a ledge located below a fan 32. Examiner contents that the motherboard of Davis is located or mounted on the bottom of the case.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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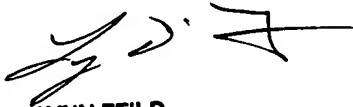
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 571-272-2042. The examiner can normally be reached on M-F (7:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2800, ext. 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 4, 2006
aqe


LYNN FEILD
SUPERVISORY PATENT EXAMINER
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